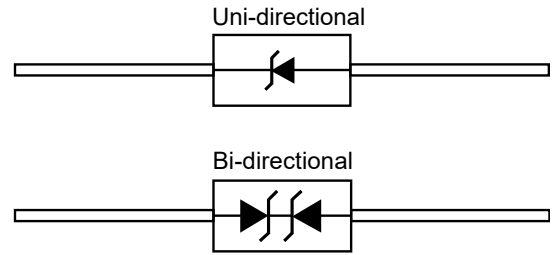


**15000 Watt Axial Leaded Transient Voltage Suppressor**
**Description**

The 15KP Series are designed specifically to protect sensitive electronics equipment from voltage transients induced by lightning and other transient voltage events.

These devices are ideal for the protection of I/O interfaces, Vcc bus and other vulnerable circuits used in automotive, industrial and consumer electronic applications.


**Feature**

- 5.0 to 190 Volts
- Glass passivated chip junction
- 15000W peak pulse power capability on 10/1000µs waveform
- Excellent clamping capability
- Repetition rate (duty cycle): 0.05%
- Low incremental surge resistance
- Fast response time: typically less than 1.0ps from 0 Volts to V<sub>R</sub>

**Mechanical Date**

Case: Molded plastic over glass passivated junction

Terminal: Solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes positive end (cathode) except Bipolar

Mounting Position: Any

**Absolute maximum rating@25°C**

Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation on 10/1000µs waveform(Note 1, FIG. 1)	P <sub>PPM</sub>	Min 15000	W
Peak Pulse Current of on 10/1000µs waveform (Note 1, FIG. 3)	I <sub>PPM</sub>	See Table 1	A
Power Dissipation on Infinite Heat Sink at T <sub>L</sub> =75°C	P <sub>M(AV)</sub>	8	W
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load, (JEDEC Method) (Note 3)	I <sub>FSM</sub>	400	A
Operating junction and Storage	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150	°C

Notes:

1. Non-repetitive current pulse, per Fig.3 and derated above T<sub>A</sub>= 25°C per Fig.2
2. Mounted on Copper Pad area of 0.8x0.8"(20x20mm) per Fig.5.
3. 8.3 ms single half sine-wave, or equivalent square wave, Duty cycle= 4 pulses per minutes maximum.

## Electrical Characteristics

Part Number (Uni)	Part Number (Bi)	Reverse Stand off Voltage $V_R$ (V)	Breakdown Voltage $V_{BR}$ @ $I_T$ (V)		Test Current $I_T$ (mA)	Maximum Clamping Voltage $V_C$ @ $I_{PP}$ (V)	Maximum Peak Pulse Current $I_{PP}$ (A)	Maximum Reverse Leakage $I_R$ @ $V_R$ ( $\mu$ A)
			MIN	MAX				
15KP17A	15KP17CA	17	18.99	20.79	50	29.3	515.4	5000
15KP18A	15KP18CA	18	20.11	22.01	50	30.9	488.7	5000
15KP20A	15KP20CA	20	22.34	24.46	20	34.3	440.2	1500
15KP22A	15KP22CA	22	24.57	26.91	10	37.1	407.0	500
15KP24A	15KP24CA	24	26.81	29.35	5	40.7	371.0	150
15KP26A	15KP26CA	26	29.04	31.80	5	44.0	343.2	50
15KP28A	15KP28CA	28	31.28	34.24	5	47.5	317.9	25
15KP30A	15KP30CA	30	33.51	36.70	5	50.7	297.8	15
15KP33A	15KP33CA	33	36.90	40.40	5	54.7	276.1	2
15KP36A	15KP36CA	36	40.20	44.00	5	59.8	252.5	2
15KP40A	15KP40CA	40	44.70	48.90	5	65.8	229.5	2
15KP43A	15KP43CA	43	48.00	52.60	5	69.8	216.3	2
15KP45A	15KP45CA	45	50.30	55.00	5	72.8	207.4	2
15KP48A	15KP48CA	48	53.60	58.70	5	77.7	194.3	2
15KP51A	15KP51CA	51	57.00	62.40	5	82.9	182.1	2
15KP54A	15KP54CA	54	60.30	66.00	5	87.7	172.2	2
15KP58A	15KP58CA	58	64.80	70.90	5	93.8	161.0	2
15KP60A	15KP60CA	60	67.00	73.40	5	97.4	155.0	2
15KP64A	15KP64CA	64	71.50	78.30	5	104.2	144.9	2
15KP70A	15KP70CA	70	78.20	85.60	5	113.6	132.9	2
15KP75A	15KP75CA	75	83.80	91.70	5	122.0	123.8	2
15KP78A	15KP78CA	78	87.10	95.40	5	126.1	119.7	2
15KP85A	15KP85CA	85	94.90	104.00	5	137.6	109.7	2
15KP90A	15KP90CA	90	100.50	110.10	5	145.6	103.7	2
15KP100A	15KP100CA	100	111.70	122.30	5	161.3	93.6	2
15KP110A	15KP110CA	110	122.90	134.50	5	178.6	84.5	2
15KP120A	15KP120CA	120	134.00	146.80	5	192.3	78.5	2
15KP130A	15KP130CA	130	145.20	159.00	5	208.3	72.5	2
15KP150A	15KP150CA	150	167.60	183.50	5	241.9	62.4	2
15KP160A	15KP160CA	160	178.70	195.70	5	258.6	58.4	2
15KP170A	15KP170CA	170	189.90	207.90	5	272.7	55.4	2
15KP180A	15KP180CA	180	201.10	220.10	5	288.5	52.3	2
15KP200A	15KP200CA	200	223.40	244.60	5	319.1	47.3	2
15KP220A	15KP220CA	220	245.70	269.10	5	356.0	42.4	2
15KP240A	15KP240CA	240	268.10	293.50	5	384.6	39.3	2
15KP260A	15KP260CA	260	290.40	318.00	5	416.7	36.2	2
15KP280A	15KP280CA	280	312.80	342.40	5	454.5	33.2	2

For bidirectional type having  $V_R$  of 30 volts and less, the  $I_R$  limit is double.

For parts without A , the  $V_{BR}$  is  $\pm 10\%$  and  $V_C$  is 5% higher than with A parts.

Ratings and Characteristic Curves  $T_A=25^\circ\text{C}$  unless otherwise noted

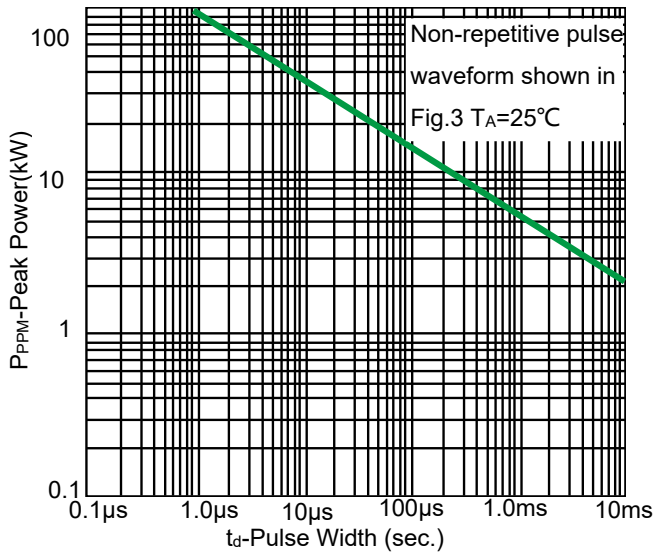


Figure 1-Peak Pulse Power Rating Curve

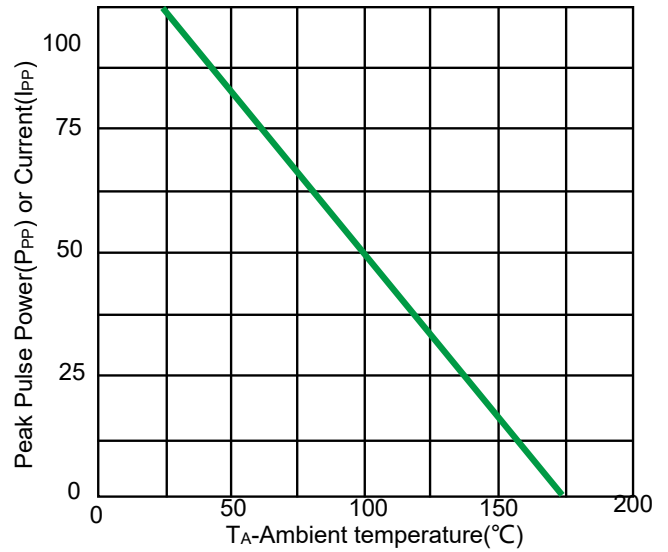


Figure 2-Pulse Derating Curve

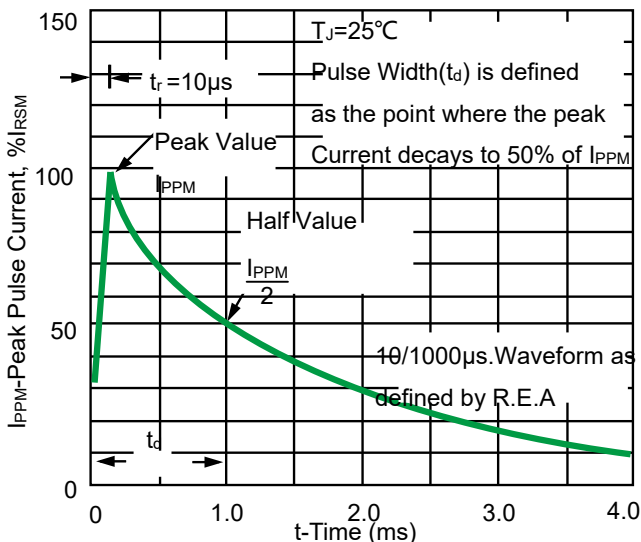


Figure 3-Pulse Waveform

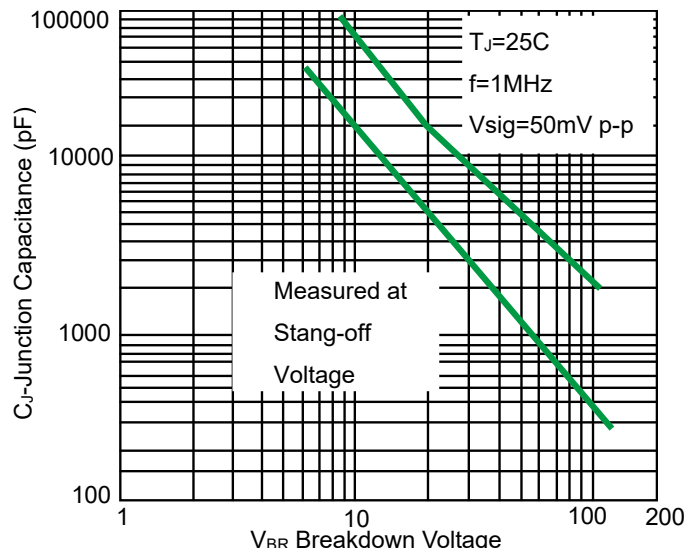


Figure 4-Typical Junction Capacitance

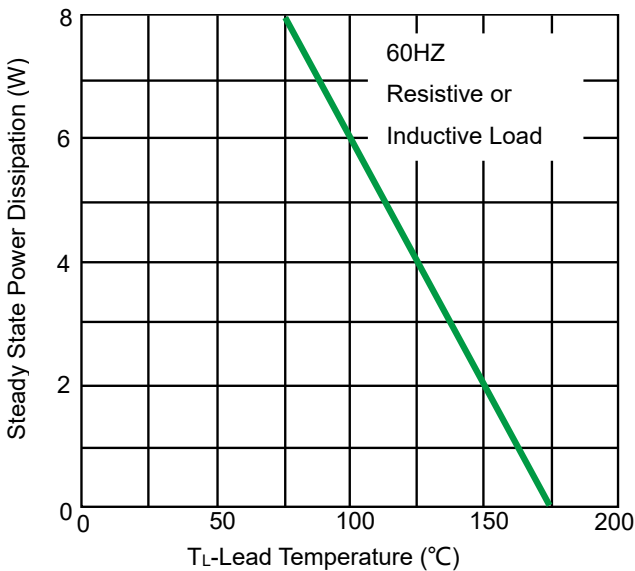


Figure 5-Steady State Power Derating Curve

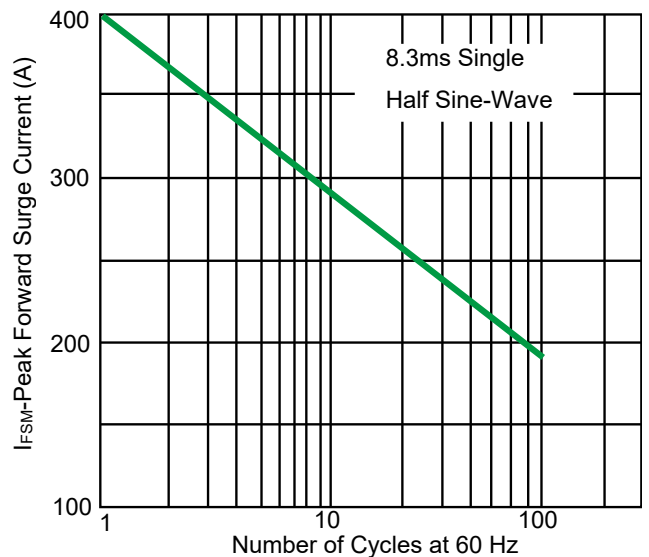
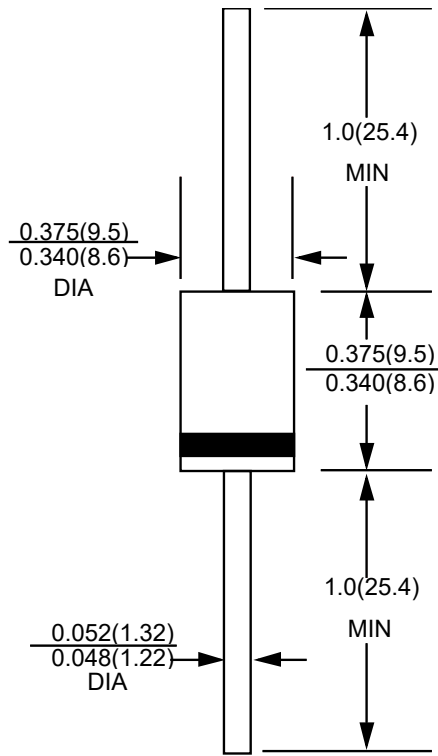



Figure 6-Maximum Non-Repetitive Forward Surge Current

Product Dimension (R-6)



Dimensions in inches and (millimeters)


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